

# Comparison between periodontal condition of patient with osteoporosis and patient with normal bone mineral density

## Abstract

**Introduction:** *Periodontal disease is characterized by inflammation within result in bone resorption. The systemic bone loss can be risk factor of periodontal disease. Different studies have shown that osteopenia and osteoporosis specially in old ones, are with periodontal disease and tooth loss. The aim of this study is Comparison between periodontal condition of patient with osteoporosis and patient with normal bone mineral density.*

**Materials and Methods:** *This case control study was performed on 51 patient of 40-70 ages in three groups ( normal, osteopenia and osteoporosis) that have refered to densitometry of Imam Khomeiny hospital of Ardebil to determin bone mineral density(BMD). BMDs of subject were evaluated using DXA in the lumbar spinal region ( L1-L4 ). Periodontal examination consist of PI, PD, CAL and BOP was performed on all teeth except third molars. Statistical analysis was performed using spss of version 19.*

**Results:** *In this study after satistical analysis, there was no significant difference between PD, BOP, PI and BMI in three groups exept of CAL that has significant diffrence between groups but in satistical analysis of two groups ( normal and low BMD ) there was significant diffrence in CAL and PI but there was no significant relationship between other indexes in two groups.*

**Discussion and Conclusions:** *As regard of large mean of CAL and PI in groups with low BMD, we can consider that osteopenia and osteoporosis can be probable risk factor of periodontal disease. Further Cohort studies with larger sample size are required.*

**Keywords:** *periodontitis, osteopenia, osteoporosis*